NNIS PNEUMONIA PILOT STUDY

Instructions and Definition of Data Fields and Sections on the Flow Diagram (Adult)

INSTRUCTIONS

1. Select the NNIS surveillance component(s) that you will follow for the months of the pilot study and enter Monthly Surveillance Plan into IDEAS as usual. The pilot study will be conducted between April – September 2001.
2. Apply the current NNIS criteria for pneumonia (NNIS Manual, Section XIII, p15-16, May 1994 or May 1999 version) to identify pneumonia. Enter such identified pneumonia into IDEAS and transmit the data electronically once per month as usual.
3. Concurrently, apply the draft NNIS criteria for pneumonia in the same cohort(s) of patients by using the NNIS Pneumonia Pilot Study Flow Diagram to record demographic, X-ray, signs and symptoms, and/or laboratory data. NOTE: A patient must meet the X-ray criteria (box in top shaded area) in order to continue to the Signs and Symptoms and/or Laboratory sections of the Flow Diagram.
4. Follow the arrows from box to box in each section of the Flow Diagram, checking off those elements of the criteria that were met until at least one specific site of pneumonia can be checked, indicating that the patient met the criteria for PNEU1 and/or PNEU2 and/or PNEU3. If a patient meets the criteria for more than one specific site of pneumonia, check all criteria and specific sites that apply.
5. Once a month, mail a copy of completed Flow Diagrams to Teresa Horan, NNIS Coordinator, MS E55, CDC, 1600 Clifton Rd, Atlanta, GA 30333.

DATA FIELD DEFINITIONS

All fields are required, except as noted.

NNID #: The three-digit number assigned to your hospital by the National Nosocomial Infections Surveillance (NNIS) system.

Infection ID #: The unique identification number assigned to an infection by the IDEAS software. If this infection was not also identified using the current pneumonia criteria and entered into the IDEAS system, leave this space blank. (Refer to Instruction 2 above.)

Patient ID #: Patient identifier assigned by the hospital and may consist of any combination of no more than 12 letters and/or numbers. If this infection was entered into IDEAS, the patient ID number on this form must match the patient ID number entered into the IDEAS software. (Refer to Instruction 2 above.)

Ward: The code or number of the hospital ward/unit that the patient was on when the infection was acquired.

Infection date: The date when the first clinical evidence of the nosocomial infection appeared or the date the specimen used to make or confirm the diagnosis was collected, whichever comes first. Use the format MM/DD/YYYY.

Ventilator: Y N: Circle "Y" if the patient with pneumonia had a device to assist or control respiration continuously through a tracheostomy or by endotracheal intubation within the 48-hour period before developing infection; otherwise, circle "N". If the time interval is longer than 48 hours, there must be compelling evidence that the infection was associated with ventilator use. Lung expansion devices such as intermittent positive pressure breathing (IPPB), nasal positive end-expiratory pressure (PEEP), and continuous nasal positive airway pressure (CPAP, hypoCPAP) are **not** considered ventilators unless delivered via tracheostomy or endotracheal intubation (e.g., ET-CPAP).

Pathogen 1: The code for the first pathogen (etiologic agent) of the infection being reported. (Refer to NNIS Manual, Section XIV, May 1994 or May 1999 version for pathogen codes.)

ICU/HRN/SP: Check the box corresponding to the surveillance component under which this infection is being reported (ICU = intensive care unit, HRN = high-risk nursery, SP = surgical patient). If appropriate, you may check more than one box. For example, you are monitoring your SICU under the ICU component and CARD under the SP component. If a post-cardiac surgery pneumonia occurred in an SICU patient, check both the SP and ICU boxes when reporting the pneumonia on the Flow Sheet.

SECTIONS

X-Ray:
In the patient who ***has underlying pulmonary disease*** such as respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease, at least **two or more positive serial chest x-rays** are required and the patient must exhibit **one** or more of the listed symptoms [new or progressive and persistent infiltrate, consolidation, cavitation, or pneumatoceles (in patients < 1 year)]. Check the tick box of the symptom(s) and proceed to the Signs and Symptoms section of the Flow Diagram.

In the patient who has ***no underlying pulmonary disease*** (see above), only **one positive chest x-ray** and **one** of the listed symptoms is sufficient to proceed to the Signs and Symptoms section. Check the tick box of the symptom(s) and proceed to the Signs and Symptoms section of the Flow Diagram.

Signs and Symptoms:

Immunocompromised patient[1]: If the patient is immunocompromised and exhibits at least **one** of the signs or symptoms listed, check the appropriate tick boxes and proceed to the Laboratory section.

***Non-immunocompromised patient**:* If the patient is not immunocompromised[1] and exhibits at least **one** of the signs or symptoms listed in the top box (i.e., fever (> 38° C/100.4°F) with no other recognized cause, leukopenia (< 4000 WBC/mm^3) or leukocytosis (≥ 12,000 WBC/mm^3), and/or for patients > 70 years of age only, altered mental status with no other recognized cause), check the appropriate tick box(es) and proceed to the next set of signs and symptoms boxes.

1. If the non-immunocompromised patient meets at least **two** of the signs and symptoms criteria, check the appropriate tick boxes. Then proceed to the bottom of the Flow Diagram and check the tick box to indicate that this pneumonia meets the criteria for specific site PNEU1.

2. If the non-immunocompromised patient has at least **one** of the signs and symptoms listed, check the appropriate tick boxes and proceed to the Laboratory section.

Laboratory:

Immunocompromised patient[1]: If the patient is immunocompromised, check the results listed in any of the three Laboratory section boxes corresponding to the patient's positive laboratory tests. Then proceed to the bottom of the Flow Diagram and check the tick boxes indicating that this pneumonia meets the criteria for specific sites PNEU2 and/or PNEU3.

Non-immunocompromised patient: If the patient is not immunocompromised, check the results listed in either the left or center boxes of the Laboratory section corresponding to the patient's positive laboratory tests. Then proceed to the bottom of the Flow Diagram and check the tick boxes indicating that this pneumonia meets one or both of the sets of criteria for specific site PNEU2.

Thank you very much for participating in the NNIS Pneumonia Pilot Study. If you have any questions or comments, please contact Teresa Horan (tch1@cdc.gov); Tel: 800-893-0485; Fax: 404-498-1101.

[1] Immunocompromised patients include those with neutropenia (absolute neutrophil count < 500/mm^3), leukemia, lymphoma, HIV with CD4 count < 200, or splenectomy; those who are early post-transplant, are on cytotoxic chemotherapy, or are on high dose steroids (e.g., > 40 mg of prednisone or its equivalent [> 160 mg hydrocortisone, > 32 mg methylprednisolone, > 6 mg dexamethasone, > 200 mg cortisone] daily for > 2 weeks).